Designing Out Crime Officer
West Yorkshire Police
Kirklees Council Planning Services
Civic Centre 1
High Street
Huddersfield
HD1 2NF

Tel: 101
Council Offices: 01484 221000
Email: richard.thornton@westyorkshire.police.uk

West Yorkshire Police
Kirklees District

To:	
Nick Hirst Kirklees Council Planning Services	Ref: 2023/91838 Date: 12h July 2023

Commercial Site Location: New Hall Farm, New Hall Lane, Overton, Wakefield, WF4 4RP
Application Type: Erection of Grid connected Solar Farm

Dear Nick

Thank you for your request for consultation for the above outline application. Having read the available information, overall, West Yorkshire Police supports the principle of this application in its current form, subject to the below advice being incorporated into the design plans.

It is requested that a **PLANNING CONDITION for Security Measures,** be applied to this application and the below advice be incorporated into the design plans.

The below information is intended for the applicant to include in any amendments to the application to maximise the security of the development.

Boundary Treatments

Perimeter fencing should comprise of a proven security fence. It is recommended that fencing is installed which has been tested and approved to LPS 1175 SR 1-3 standard, this being the most appropriate.

High tensile wire deer fence, with wooden posts as a perimeter treatment for this solar farm is **NOT** recommended. Fencing, which is not of a specialist security type, as appears to be proposed for this site, is likely to offer only token resistance to intruders.

Site entrance security gates are to be of similar construction, height and security rating to the fencing.

Planting up and alongside any fencing is acceptable providing there is no detrimental effect upon site surveillance.

Security fencing must be installed around the site perimeter to the recommended LPS1175: Issue 8.1 SR1 – SR3 or above security standards. Materials may include welded mesh and expanded metal available in numerous coloured coatings, which are sometimes used in conjunction with timber. Railings of various designs can be used to good effect and all fencing types 2.4m above ground level, can be fitted with hostile toppings to deter climbing.

As an alternative, a deep trench of up to 2m in width can be dug around the perimeter to prevent vehicular access. Additional hostile planting can be added to the rim of the trench as a deterrent. The main site entrance will be left filled in with additional secure gates to the below specifications.

It must be stated at this stage that the applicants own any current and future risk of any potential injury to the public due to security measures on the site boundary. This is subject to the below legislation in relation to public safety and injury prevention.

The Occupiers Liability Act 1984, The Highways Act 1980, The Criminal Justice Act 2003 and current Health and Safety legislation.

It is the recommendation of West Yorkshire Police that the boundary treatments for the site be robust to a height of 2.4m with external and internal signage on the boundary perimeter stating the use of hostile or defensive toppings. It is essential that warning signage be placed around the exterior and interior of the perimeter fencing at regular intervals.

Access must be restricted from public land by installing a lockable gate of the same material and same height as the fencing.

It is advised that the boundary fencing is defended with defensive planting to the outside of the fence.

A party or shared boundary should not compromise security and maintenance. It may be advisable to erect a separate security fence inside the party boundary, ensuring access for maintenance of both existing and new structures. It is important to take account of neighbours' amenity in the choice of structure, as they will be more likely to act as deterrents or witnesses in helping to maintain site security. This arrangement may create a new path around the boundary and measures may be required to obstruct this path at vulnerable points.

All steel used in manufacture should be galvanized to BS EN ISO 1461:2009 and/or stainless steel with a service life more than 25 years.

When the building is closed and unoccupied, it must be possible to lock all entrance gates onto the site. During partial occupation, whether by employee, cleaners or security staff, perimeter gates should be operable by appropriate means of secure access control.

It is essential that all fencing and boundary treatments be designed so that the external face is flat with no footholds for climbing. This applies to any gates used on the site as well.

Standard for security fencing for higher security risks

In circumstances where there is a higher risk of crime or there are high value goods on site, a fence that is resistant to intrusion will be required. The minimum standard for such a fencing system is one that is certified to LPS 1175: Issue 8.1, Security Rating 2+ or Sold Secure Gold standard or higher, depending upon risk. To meet this security standard, the fence may not be aesthetically acceptable in some settings. Should this be an issue the applicant must discuss the matter with myself, and an alternative fencing system may be recommended. Higher standards for fencing are available, such as systems tested for use around government property. *The above LPS standard relates to both the height and penetrative resistance of the fence i.e., SR 3 is substantially more resistant to penetration than SR1. Such penetrative resistance may not always be required even though a height of 2.4m is necessary.*

All fencing systems and gates as described below must be installed by the manufacturer or to the exact installation specifications provided by the manufacturer. BS 1722 offers installation advice. Consideration must be given to the provision of a strip foundation if there is a perceived risk of the fence being bypassed or undermined by the removal of substrate, guidance is also provided in BS 1722.

Hostile topping may be used in conjunction with the perimeter fencing above 2.4m from ground level. It is advised that appropriate signage is installed along the lengths of the perimeter with hostile topping deployed.

Any accessible areas of the roof around any site buildings should be protected to prevent climbing access and roof intrusion by offenders.

Gates

Access must be restricted to the perimeter defensible space from public land by installing a lockable gate of the same material and same height as the fencing. It is advised that the gate construction is such that no footholds or cross members are accessible from the outside of the gate, especially around the locking mechanism to prevent climbing.

The design, height and construction of any gates within a perimeter fencing system should match that of the adjoining fence and not compromise the overall security of the boundary.

Security bollards (including those intended for Hostile Vehicle Mitigation)

Where crime risks dictate that there is a realistic chance of a ram raid type attack, with the intent to aide theft of the contents, or a vehicular borne attack to enter the premises or penetrate the site or shell of the building to carry out an act of terrorism, the following standards for secure bollards that will prevent such an attack should be specified:

- Fixed bollards should have been successfully tested to PAS 68-1:2013 *Performance specifications for vehicle security barriers – fixed bollards*
- Rising Bollards should have been successfully tested to PAS 68-2:2013 *Performance Specification for vehicle security barriers – rise and fall bollards*
- Bollards providing passive protection to areas of a development or building that either are not required to have protection against an attack by a vehicle e.g., to keep a fire door (opening outwards) clear of obstruction, or where there is no means by which a vehicle may have access, but a substantial barrier is still required may be tested to BS 170-1.

PAS 69: 2013 provides guidance on the appropriate selection, installation and use of such bollards and should be referenced in the first instance.

Other measures may be considered to address a possible vehicle borne attack as an alternative to bollards e.g., substantial planting boxes or raised kerb.

External lighting

All street lighting for both adopted highways and footpaths, private estate roads and footpaths and car parks must comply with BS5489-1:2020 standard. Where conflict with other statutory provisions occurs, such as developments within conservation areas, requirements should be discussed with the local authority lighting engineer.

Landscaping, tree planting and lighting schemes shall not conflict with each other.

The recommended Overall Uniformity of light for a development is expected to achieve a rating of 0.4Uo and should never fall below 0.25Uo. *The evenness of light distribution is almost always more important than the levels of illumination being achieved by the system (the levels are determined by BS 5489-1:2020) The British Standards Institute have issued an advisory note stating that they recommend that Uo be at least 0.25 or 25%. A 0.4 Uo value is the ideal standard for a lighting system, but where technical reasons prevent this, we will still require the very best levels possible and under no circumstances may the rating fall below 0.25Uo.*

The Colour Rendering qualities of lamps used in an SBD development should achieve a minimum of at least 60Ra (60%) on the Colour Rendering Index

It is advised that LED lighting standards are installed to produce downward lighting. This lighting should give a uniform spread of light around the site and not have any large areas of shade or shadow.

The site should provide external lighting such as low energy photoelectric cell or dusk until dawn lighting above all access doors of the building. Any fittings and wiring should be vandal resistant and located within inaccessible positions to deter any criminal attack.

The lighting plan should work in harmony with any CCTV system, which should cover the same locations as mentioned above.

Security measures

CCTV and Alarm

Details of security measures for the site MUST be included within the Design and Access Statement under the heading “Security Measures”. It is recommended that these camera mountings be set higher above 3m from ground level to reduce the possibility of criminal interference. Any supply cables to the CCTV system must be made secure and not be left exposed for the same reasons.

Perimeter Intrusion Detection Systems

Perimeter Intrusion Detection Systems (PIDS) denote a variety of technologies designed with the same purpose, to detect an intruder attempting to breach a perimeter fence or boundary. These technologies can be classified in four distinct categories, namely Barrier-mounted, Free-standing, Ground-based and Rapidly Deployable systems. Supporting information can be found on the NPSA website - Protecting Your Assets | NPSA

Vehicular Access

There should be a minimum number of vehicular access points onto site, ideally only one. Each entrance will require robust and adequate defences at their respective locations.

The wider issues of access around the site should also be considered. If for instance the land surrounding the site is under the same ownership can this be made more secure by improving other fencing, gates, hedges, using bunds, ditches etc. to provide layers of difficulty for the criminal to overcome in trying to access the site.

Landscaping / Planting

External planting may be intended to screen the site from passers-by. The use of defensive planting i.e. hostile thorny shrubs and trees at these locations can further deter unauthorised access onto the site.

Electronic Security Measures

To monitor the site and detect any unauthorised access, remotely monitored, motion-activated Passive Infra-Red (PIR) security cameras must be installed which will avoid the need for any lighting on site. It is recommended that the installation of such cameras would be beneficial to the site security. In the event of an activation, notification can be sent to monitoring company or police who will respond. The number and precise location of the cameras around the site must be indicated on the Solar Layout plan for assessment.

The applicant should also consider the installation of a Perimeter Intruder Detection System (PIDS) which would alert the operator to any unauthorised intrusion and may negate the need for more substantial perimeter fencing and gates.

Many of this type of facility also includes 12 Battery Storage Units, Inverters and a Control Building, all of which are potential targets and should be secure and electronically protected by intruder alarms.

There are also ways of alarming the solar panels which will then activate upon any interference. This may, depending on circumstances, be able to be connected to a remote monitoring facility.

Security Personnel

The site could be remotely monitored and not permanently staffed with periodic visits by employees only for maintenance. This obviously increases the potential vulnerability of the site and equipment contained within it, particularly during the hours of darkness.

The presence of site security personnel or patrols in some capacity should be considered including in terms of response to site CCTV and alarm activations.

Property Marking

Consideration should also be given to overtly marking the panel frames, tools and any other easily portable equipment on site with unique reference numbers to assist identification if stolen.

There are products now available which lock the panels together to make the removal of individual panels very difficult.

The panels should be installed correctly. This should be by security screw fixings requiring a specialist tool making it more difficult for any opportunist criminal to easily remove panels.

Some of the larger solar farms already in existence have suffered instances of burglary, theft of tools and equipment, cabling and other metals in addition to vandalism of panels so it is important that the above recommendations are taken into account.

Wall construction

Due to the remoteness of some industrial and warehouse units and or reduced activity at night and over the Weekends, some buildings become prone to criminal attack through the wall, bypassing security doors and shutters. The walls should therefore be designed to withstand such attacks and materials resistant to manual attack or damage should be used to ensure the initial provision of security.

Where lightweight construction is being considered, for example the use of insulated sheet cladding, a reinforced lining such as welded steel mesh can enhance the security of the building fabric. Internal plasterboard walling to STS 202 Issue 7 BR1 Requirements for burglary resistance of construction products, should also be considered.

Roller shutters and grilles

Grilles and shutters can provide additional protection to both internal and external doors and windows. The minimum standard for such products, when required, is certificated to:

- LPS 1175: Issue 8:2019 Security Rating B10 or above
- STS 202: Issue 3, Burglary Rating 1

For roller shutters, the above minimum-security ratings are generally sufficient where:

- a shutter is required to prevent minor criminal damage and glass breakage or
- the shutter is alarmed, and the building is located within a secure development with access control and security patrols or
- the shutter or grille is intended to prevent access into a recess or
- the door or window to be protected is of a high security standard

Security ratings higher than the minimum may be required and will be dictated by one or more of the following security considerations

- Type of crime risk
- Level of crime risk
- Location of the building
- Security level of the door or window being protected

External doorset apertures

It is important that the doorset aperture be protected. Due to the nature of some commercial building uses and locations, there is an expectation that the security will be required to meet the following minimum standards when the building is unoccupied:

- The new PAS 24:2022 standard; or PAS 24:2016 until September 2024
- LPS 1175: Issue 8:2019 Security Rating B10 or above
- STS 201 or STS 202: Issue 3, BR2

Additional security may be gained by utilising additional protection such as a certified roller shutter or grille.

It is expected that all doorset products are fit for purpose and therefore certification to the following material specific standards is also required:

- BS 6510:2010 (Steel)
- BS 7412:2007 (PVCu)
- BS 644:2012 (Timber)
- BS 8529:2010 (Composite)
- BS 4873:2009 (Aluminium)

It is strongly recommended that any doors that include a euro cylinder lock be rated to standards; TS007 3 Star, STS 217 or Sold Secure Diamond Standards. These offer more resistance to this type of attack and will prevent crime. Consult the door supplier to make sure that the PAS24 rating is not affected if locks are upgraded.

Windows

The below are the recommended standards.

- The new PAS 24:2022 standard; or PAS 24:2016 until September 2024

- STS 202: Issue 10:2021, Burglary Rating 1
- STS 204 Issue 3:2012
- LPS 1175: Issue 8.1:2020 Security Rating B10 or above
- LPS 2081 Issue 1.1:2016 SR A

Ideally laminated glazing should be installed and certificated to a minimum of BS EN 356 P2A rating, so that if there are any attempts of entry the glass will remain intact.

Security glazing

All ground floor and easily accessible glazing must incorporate one pane of laminated glass to a minimum thickness of 6.8mm laminate pane which would be successfully tested to BS EN 356:2000 P2A rating - *Glass in building.* All glass types that achieve a BS EN 356 rating, whether it's at the lower end of the scale (P1A-P5A) or the far end (P6B and above) would be classed as a security glass since they achieve some degree of burglary resistance according to that standard. It is a recommendation for all laminated glass in commercial premises to be certified to BS EN 356 2000 P6B rating or above unless it is protected by a roller shutter or grille.

Occasionally, when large laminated glazed panels are used on south facing elevations, there have been incidents of glazing failure (cracking) due to thermal stress. Whilst the use of toughened glass would seem to be a simple solution to the problem of thermal stress, ordinary toughened glass offers no security resistance. It is therefore recommended that the inner pane of glass used in a double-glazed unit is 'laminated toughened'. This combination of the two sheets of toughened glass and the interlayer offers both resistance to intrusion and thermal stress associated with large, glazed areas.

When premises are assessed as being at significant risk to the effects of blast from a terrorist attack, blast resistant glazing or anti shatter film may be required to mitigate the risk of death or injury from the effects of flying glass. Separate information from a West Yorkshire Police Counter Terrorist Security Advisor will give further information on this matter.

CCTV

External warning signs should be installed all around the site stating that there is "MONITORED" CCTV recordings on site.

CCTV is not a universal solution to security problems. It can help deter vandalism or burglary and assist with the identification of offenders once a crime has been committed, but unless it is monitored continuously and appropriately recorded, CCTV will be of limited value in relation to the personal security of staff and visitors. The provision and effective use of CCTV fits well within the overall framework of security management and is most effective when it forms *part* of an overall security plan.

Developers of new commercial premises and managers of existing premises that are considering the use of CCTV must be very clear about the objectives they wish to meet and establish a policy for its use and operation before it is installed. It is important to seek independent advice before approaching an installer and to develop a comprehensive operational requirement for the system, which can be supplied to installers during the tendering process. An operational requirement will be used for the design, performance specification and functionality of the CCTV system. In effect, it is a statement of problems, not solutions and will highlight the areas that must be observed by the system and the times and description of activities giving cause for concern. A useful reference to help achieve this goal is the *CCTV Operational Requirements Manual 2009 ISBN 978-1-84726-902-7 Published April 2009 by the Home Office Scientific Development Branch*

The CCTV system must have a recording capability, using a format that is acceptable to the local police. The recorded images must be of evidential quality if intended for prosecution. Normally this would require a full 'body shot' image of a suspect. It is recommended that fixed cameras are deployed at specific locations for the purpose of obtaining such identification shots. An operational requirement must take account of this fact and decisions made as to what locations around the building are suitable for obtaining this detail of image. The recording of vehicle licence plates may also be practical and useful.

Whilst the location of cameras is a site-specific matter it would be normal practice to observe the main entrance to the premises and the reception area. In high crime areas CCTV cameras may need protection within a vandal resistant housing. CCTV coverage is advised of any current areas of the site that are known by the staff to be problematic for criminal offences. Early discussions with an independent expert and potential installers can resolve several matters including:

- Monitoring and recording requirements
- Activation in association with the intruder alarm
- Requirements for observation and facial recognition/identification
- Areas to be monitored and field of view
- Activities to be monitored
- The use of recorded images
- Maintenance of equipment and the management of recording
- Subsequent ongoing training of operatives

CCTV systems must be installed to BS EN 62676-4:2015 Video surveillance systems for use in security applications.

The design of a CCTV system should be co-ordinated with the existing or planned lighting system for the buildings and the external grounds, to ensure that the quality of the lighting is sufficient to support the CCTV.

CCTV systems may have to be registered with the Information Commissioner's Office (ICO) and be compliant with guidelines in respect to Data Protection and Human Rights legislation. Further information is available at this website: www.ico.gov.uk

For guidance on the use of CCTV images as legal evidence see also BS 7958: 2009 *Closed circuit television (CCTV). Management and operation. Code of practice*. This document provides guidance and recommendations for the operation and management of CCTV within a controlled environment where data that may be offered as evidence is received, stored, reviewed or analysed. It assists owners of CCTV systems to follow best practices in gaining reliable information that may be used as evidence.

Remotely monitored detector activated CCTV systems must be installed in accordance with BS 8418: 2015 *Installation and remote monitoring of detector operated CCTV systems - Code of practice.*

Intruder alarms

System designers may wish to specify component products certificated to the following standards:
Suitable standards are to BS EN 50131 or PD6662 (wired alarm system) or BS 6799 (wire free alarm system).

Internal security fogging devices can be incorporated within the intruder alarm system to disorientate the intruder when the alarm system is activated. They must conform to BS EN 50131-8:2009 Security Device Fog Systems.

Security Enhancement Schemes

West Yorkshire Police encourages applicants to seek to build / refurbish a development incorporating the guidelines of ***Crime Prevention Through Environmental Design*** **(CPTED)** [1&2].

Enhanced security schemes such as **BREEAM / SABRE** together with ***Secured by Design*** **(SBD)**, offer developers additional security information and accreditation. The **SABRE** scheme is jointly operated by The Security Institute and the BRE Group.

Academic research by Huddersfield University has proven[3] that building to enhanced security standards such as **BREEAM / SABRE** and **SBD**, reduces the opportunity for crime and the fear of crime as well as creating safer, more secure, and sustainable environments.

Secured by Design

SBD_Commercial_2015_V2.pdf (securedbydesign.com)

[1] Armitage R. (2013) *Crime Prevention through Housing Design: Policy and Practice*. Palgrave Macmillan: Crime Prevention and Security Management Book Series.

[2] Armitage, R. and Monchuk, L. (2018) What is CPTED? Reconnecting Theory with Application in the Words of Users and abusers. *Policing: A Journal of Policy and Practice*.

[3] Armitage, R, and Monchuk, L (2011) Sustaining the Crime Reduction Impact of Secured by Design: 1999 to 2009. *Security Journal*, 24 (4), p. 320-343.

IMPORTANT General information

This advice is based upon concerns following recent current crime trends in the area concerned. The above advice expressed, is given as a view as to what measures might reduce the risk of crime; there can be no guarantee that the recommendations / concerns will prevent crime.

Before any measures are implemented you are advised to consider current Health and Safety Legislation, Planning Permission and consult with your local **Fire Safety Officer** or any statutory body that may require notification or consultation.

Note – National standards and specifications are often updated, please ensure that the latest version of the security standards and specifications specified in this letter are adhered to.

Policy Guidance

The *National Planning Policy Framework (July 2021)*

Strategic policies

20. Strategic policies should set out an overall strategy for the pattern, scale and design quality of places, and make sufficient provision[13] for:

a) housing (including affordable housing), employment, retail, leisure and other commercial development.

b) infrastructure for transport, telecommunications, **security**, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat).

Section 8. Promoting healthy and safe communities

92. Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:

b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example using attractive, well-designed, clear and legible pedestrian and cycle routes, and high-quality public space, which encourage the active and continual use of public areas; and

97. Planning policies and decisions should promote **public safety** and take into account wider **security and defence** requirements by:

a) anticipating and addressing possible **malicious threats** and natural hazards, especially **in locations where large numbers of people are expected to congregate**[43]. Policies for relevant areas (such as town centre and regeneration frameworks), and the layout and design of developments, should be informed by the most up-to-date information available from the police and other agencies about the nature of potential threats and their implications. ***This includes appropriate and proportionate steps that can be taken to reduce vulnerability, increase resilience and ensure public safety and security***; and

b) recognising and supporting development required for operational **defence and security** purposes and ensuring that operational sites are not affected adversely by the impact of other development proposed in the area.

Section 9. Promoting sustainable transport

108. Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). **In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure**, alongside measures to promote accessibility for pedestrians and cyclists.

Section 12. Achieving well-designed places

130. Planning policies and decisions should ensure that developments:

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users49; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.

Kirklees Local Plan (February 2019)

Policy LP24 supports the above statement and mentions that new developments should incorporate crime prevention measures to achieve:

Section (e). – "*the risk of crime is minimised by enhanced security, and the promotion of well – defined routes, overlooked streets and places, high levels of activity and well –designed security features*".

Crime and Disorder Act, 1998

This report is submitted in the interests of crime prevention and addresses our collective responsibilities under:

Section 17 - Duty to consider crime and disorder implications.

(1) Without prejudice to any other obligation imposed on it, it shall be the duty of each authority to which this section applies to exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent,

(a) crime and disorder in its area (including anti-social and other behaviour adversely affecting the local environment); and

(b) the misuse of drugs, alcohol and other substances in its area; and

(c) re-offending in its area.

Summary

Whilst there is no objection in principle to the application, West Yorkshire Police feel that the above recommendations would be beneficial to the security and safety of the site users. Therefore, it is advised that the points raised in this document should be implemented and any re-submitted plans from the applicant to be assessed by a Designing Out Crime Officer prior to a final planning decision.

Yours sincerely
Richard Thornton
Designing Out Crime Officer

Telephone Police Non-Emergency – 101
Kirklees Planning Office – 01484 221000

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